

CLAIMS

What is claimed is:

1. A method of displaying a markup document linked to an applet, the method comprising:
delaying display of image output information for the markup document; and
synchronously displaying the delayed image output information for the markup document and an applet output when rendering of the applet is completed.
2. The method of claim 1, wherein the delaying of the display of the image output information for the markup document comprises buffering the image output information for the markup document.
3. The method of claim 1, wherein the synchronously displaying the delayed image output information for the markup document and the applet output for an initial image of the applet comprises simultaneously providing the delayed image output information for the markup document and the applet output for the initial image of the applet to a display device based on an output control signal.
4. The method of claim 1, wherein the applet is formed of program codes having an output method different from that of the markup document.
5. The method of claim 3, wherein the output control signal is provided from an applet executing engine, which interprets the applet, or a presentation engine, which interprets the markup document.
6. The method of claim 1, wherein the delaying of the display of the image output information for the markup document comprises buffering text output of the markup document and buffering at least one of an image output and an audio output of the markup document.

7. The method of claim 2, wherein the buffering comprises buffering text output of the markup document and buffering at least one of an image output and an audio output of the markup document.

8. The method of claim 3, wherein the delaying of the display of the image output information for the markup document comprises buffering text output of the markup document and buffering at least one of an image output and an audio output of the markup document.

9. An information storage medium controlling a computer, comprising:
a markup document; and
an applet linked to the markup document,
wherein the applet or the markup document includes markup image output delay information used to delay display of the markup document.

10. The information storage medium of claim 9, wherein the applet executes in any one state of an initial state, a start state, a stop state, and a destroy state.

11. The information storage medium of claim 9, wherein the applet includes a delay function as the markup image output delay information for synchronizing display of image output information of the markup document with display of output information of the applet.

12. The information storage medium of claim 10, wherein the applet includes a delay function during the start state as the markup image output delay information for synchronizing display of image output information of the markup document with display of output information of the applet.

13. The information storage medium of claim 10, wherein the applet comprises:
a delay function as the markup image output delay information, which delays display of image output information for the markup document; and
a delay cancel function canceling the delay of the display of the image output information for the markup document, when rendering of an initial image of the applet is completed by the initial and start states of the applet.

14. The information storage medium of claim 9, wherein the markup document comprises tag or attribute indication information as the markup image output delay information to control synchronous display of output of the markup document with output of the applet.

15. A computer system with a display device, comprising:
a presentation engine, which interprets a markup document to provide image output information for the markup document; and
an applet executing engine, which interprets an applet linked to the markup document to provide an applet output,
wherein the presentation engine delays display of the image output information for the markup document, and synchronizes and outputs the delayed image output information of the markup document and the applet output to the display device, when an output control signal indicating completion of rendering of the applet output is input from the applet executing engine.

16. The system of claim 15, wherein the presentation engine comprises a buffer buffering the image output information of the markup document to delay the display of the image output information for the markup document, in response to a markup image output delay signal input from the applet executing engine.

17. The system of claim 15, wherein the presentation engine comprises an audio buffer, which buffers audio output, and a video buffer, which buffers video output, of the image output information of the markup document and/or of the applet output to delay the display of the image output information for the markup document, in response to the output control signal input from the applet executing engine.

18. The system of claim 16, wherein the markup image output delay signal is set according to an amount of rendering time of the markup document and/or the applet.

19. A computer with a display device, comprising:
a programmed computer processor controlling synchronous output of a markup document image including a linked applet image to the display device, according to display control information in the markup document and/or in the applet.

20. The computer of claim 22, wherein the programmed computer processor controls an order of rendering of the markup document image and the linked applet image according to the display control information to synchronously display the markup document image and the linked applet image.